USER INTERFACE DEVELOPMENT

Bharat Aggrawal Mechanical Technology, Inc. Latham, New York

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Current Status

User interface complete for the OS/2 version of the following components:

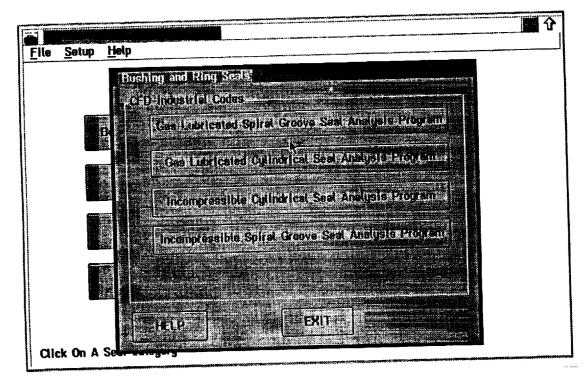
- Executive Shell
- Spiral Groove Gas Cylindrical Seals (SPIRALGC)
- Spiral Groove Gas Face Seals (SPIRALGF)
- Spiral Groove Face Seal Optimization (FACE)
- Gas Cylindrical Seals (GCYL)
- Gas Face Seals (GFACE)
- Incompressible Cylindrical Seals (ICYL)
- Incompressible Face Seals (IFACE)
- Fluid Properties Calculation (FLUID)
- Plotting Program for GCYL, GFACE, ICYL, and IFACE.
- Cylindrical Seals Configurations for SCISEAL

New Features

Features added since the last workshop based on user feedback:

- Units conversion between SI and English units from the Analysis Options menu item
- A Set Defaults menu option to set all input values to program defaults
- A Batch Mode option in the Analysis menu to run multiple test cases
- Automatic handling of data files from a previous test case
- Deletion of Input and Output files from the File menu in the Executive
- All analysis codes built using a 32-bit FORTRAN compiler for OS/2. Codes run at least twice as fast as the previous versions. Users must have OS/2 2.0 or later versions.
- New, easy to use installation program
- Several internal enhancements to improve performance and reduce development time

Bushing and Ring Seal Codes

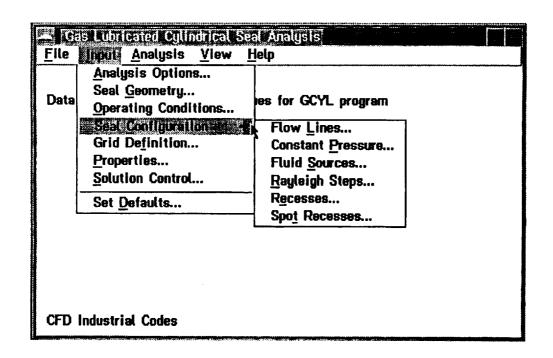


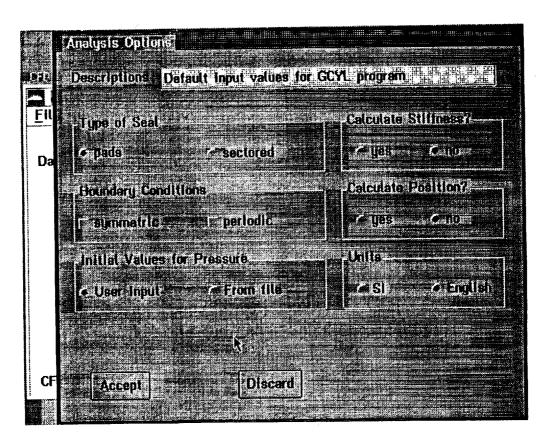
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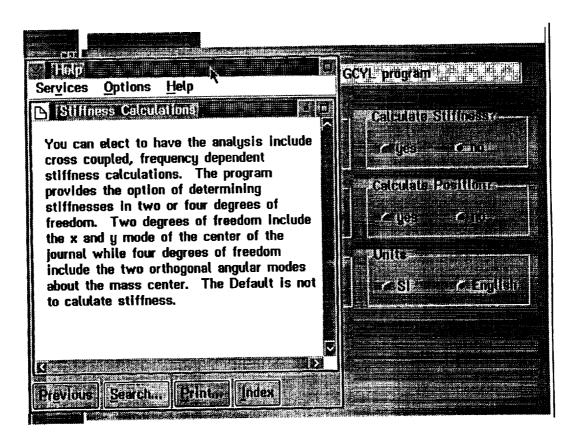
Using an Industrial Code: FILE menu

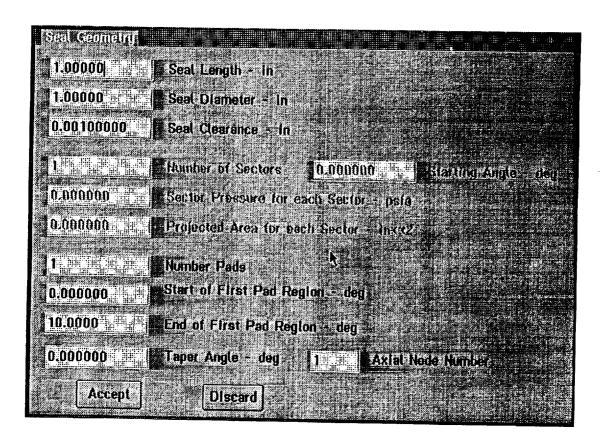
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| CFD Industrial Codes |

Using an Industrial Code: INPUT menu

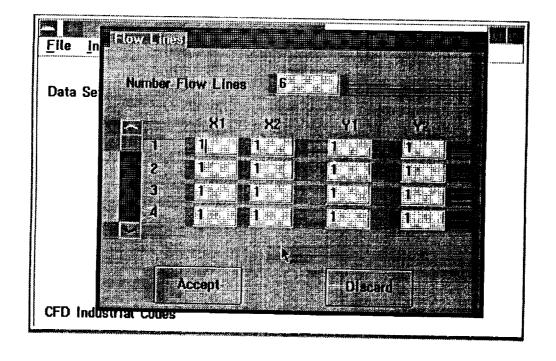








Using an Industrial Code: Array Input



Using an Industrial Code: Analysis menu

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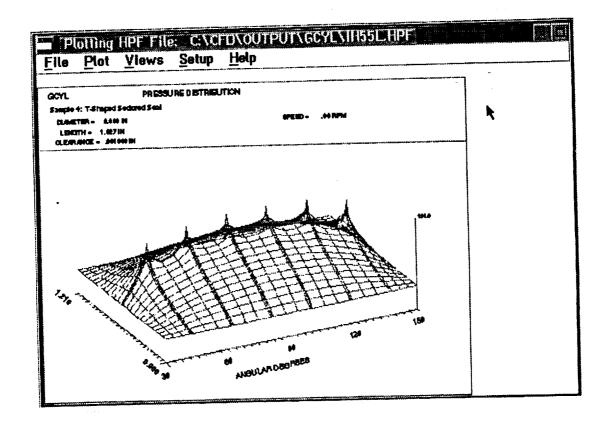
Using an Industrial Code: Batch Mode

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Using an Industrial Code: VIEW menu

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| | PRINT Programme | |



Work in Progress - Future Plans

New components to be added to the system:

- Labyrinth Seal Analysis (KTK) from the Air Force. Work about 70% complete.
- Seal Dynamics Code (Face and Cylindrical Seals)
- Expert systems
- Enhancement of SPIRALI to include loss coefficients for spiral grooves

Operating System Considerations:

- Problems with conversion of user interface code to Unix
- Distributed Computing Environment (DCE) makes it possible to run programs on an OS/2 machine from a Unix workstation
- OS/2 to be available for Power PC RISC machines in April-May 1994.
- Ability to run both Unix and OS/2 on the same machine at the same time on systems based on OSF Mach 3 kernel